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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,161	01/24/2001	Robert P. Loce	105432	9226
27074	7590	03/26/2004		
OLIFF & BERRIDGE, PLC. P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER STREGE, JOHN B	
			ART UNIT 2625	PAPER NUMBER 4

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,161

Applicant(s)

LOCE ET AL.

Examiner

John B Strege

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-17 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Examiner's Comment

1. A request for corrected filing was received (paper number 2 of the file) regarding an error with respect to the title and a substitute title was enclosed. However the correction contains a spelling error "Anti-aliased" should be "Anti-aliased". Correction is recommended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 9-15, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bearss et al. USPN 6,678,426 (hereinafter Bearss) in view of Applicant's admitted prior art.

Claim 1 discloses, "a method for processing anti-aliased images comprising: characterizing an anti-aliased input image using one or more loose-templates; and processing the characterized image to affect a second image."

Bearss discloses a print resolution enhancement device (col. 1 lines 14-15) that uses a synthesis template (loose template) to synthesize an image to a different resolution (characterize the image) and processes the synthesized image to render it onto an output device (col. 4 lines 28-44)(as seen in figure 3). Bearss doesn't explicitly disclose inputting an anti-aliased image.

It is well known in the art of image processing to perform anti-aliasing on an image in order to avoid distortions that arise due to insufficient sampling. Applicant's admitted prior art discloses that the anti-aliased data source can be any known system providing anti-aliased image data to the imaging system (page 6 lines 1-6).

Bearss and the Applicant's admitted prior art are analogous art because they are from the same field of endeavor of image processing.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine Bearss and the Applicant's admitted prior art to use an anti-aliased image as the input image into the system as disclosed by Bearss. The motivation for doing so would be to allow an anti-aliased image to be print resolution enhanced. Thus it would have been obvious to one of ordinary skill in the art to combine Bearss and the Applicant's admitted prior art to obtain the invention as specified in claim 1.

Regarding claims 2 and 12, since Bearss changes the resolution of the image, the line widths of the second image must also be changed, and therefore the process of rendering the image must control the line widths and growth of the second image.

Regarding claim 9, it is obvious that if an anti-aliased image is input that an anti-aliased image would be output.

Regarding claim 10, the rendering step reduces the high resolution image to output the image to a device with a lower resolution (col. 4 lines 30-33).

Regarding claim 11, as seen in figure 3 the input image is compared to a template.

Regarding claim 13, it is well known in the art of image processing to use a look-up table and therefore it would be obvious to use a look-up table to control the line-widths.

Claim 14 is an apparatus claim disclosing the same limitations as the method of claim 1, thus the arguments made for the rejection of claim 1 apply equally to the rejection of claim 14.

Claims 15 is an apparatus claim disclosing the same limitations as the method of claim 2, thus the arguments made for the rejection of claim 1 apply equally to the rejection of claim 15.

Claims 22-23 are apparatus claim disclosing the same limitations as the method of claims 9-10, thus the arguments made for the rejection of claim 1 apply equally to the rejection of claims 22-23.

4. Claim 3-4, 8, 16-17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bearss et al. USPN 6,678,426 (hereinafter Bearss) in view of Applicant's admitted prior art and further in view of Matsugu et al. USPN 6,463,176 (hereinafter "Matsugu").

Claim 3 discloses, "the method of claim 1, wherein the step of characterizing the anti-aliased image includes: extracting one or more image portions from the anti-aliased input image; and performing a pattern matching operation between at least one loose-template and at least one image portion to produce a screen containing at least one or more features." Neither Bearss nor the applicant explicitly disclose this.

Matsugu discloses extracting local feature elements of an input image, and using a template to perform pattern matching (as seen in figure 1B). This is used to reproduce an image and the resulting image is sent to an image display unit A9 (fig. 1A).

Bearss, the Applicant's admitted prior art, and Matsugu are all analogous art because they are all from the same field of endeavor of image processing.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine Bearss, the Applicant's admitted prior art, and Matsugu in order to obtain the invention as specified in claim 3. The motivation for doing so would be to provide an image generating method in which images are generated at low computation cost and in short processing time. Therefore it would have been obvious to combine Bearss, the Applicant's admitted prior art, and Matsugu in order to obtain the invention as specified in claim 3.

Regarding claim 4 Matsugu discloses that the result of matching processing of the feature elements are compared (arbitrated) with a predetermined threshold value, and a recognition candidate is selected as a result (col. 4 lines 54-58).

Regarding claim 8, it is well known to produce a feature vector in order to distinguish between different parts of an image. Matsugu discloses producing a feature vector to represent the feature elements (col. 14 lines 50-56).

Claim 16 is an apparatus claim disclosing the same limitations as the method of claim 3, thus the arguments made for the rejection of claim 3 apply equally to the rejection of claim 16.

Claim 17 is an apparatus claim disclosing the same limitations as the method of claim 4, thus the arguments made for the rejection of claim 4 apply equally to the rejection of claim 17.

Claim 21 is an apparatus claim disclosing the same limitations as the method of claim 8, thus the arguments made for the rejection of claim 8 apply equally to the rejection of claim 21.

Allowable Subject Matter

5. Claims 5-7, 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

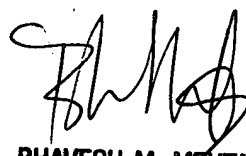
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B Strege whose telephone number is (703) 305-8679. The examiner can normally be reached Monday-Friday between the hours of 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



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